

REMARKS

Applicants have carefully considered the July 28, 2005 Office Action, and the amendments above together with the comments that follow are presented in a bona fide effort to address all issues raised in that Action and thereby place this case in condition for allowance. Claims 13-18 are pending in this application. Claims 13-14 have been withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b).

In response to the Office Action dated July 28, 2005, claim 15 has been amended. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, the depicted embodiments and related discussion thereof in the written description of the specification. Applicants submit that the present Amendment places the application in condition for allowance and does not generate any new matter issue. Entry of the Amendment and prompt favorable reconsideration are respectfully requested.

The misspelled term identified by the Examiner in claim 15 has been corrected. Accordingly, reconsideration and withdrawal of the objection to claim 15 are solicited.

Claims 15, 17 and 18 were rejected under 35 U.S.C. § 102(b) for lack of novelty as evidenced by Ichimura et al. (JP 10170955, hereinafter "Ichimura"). In the statement of the rejection, the Examiner referred to various Figures and paragraphs of Ichimura, asserting the disclosure of a display apparatus corresponding to that claimed. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the possession of one having ordinary skill in the art. *Helifix*

Ltd. v. Blok-Lok, Ltd., 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994). Moreover, in imposing the rejection under 35 U.S.C. § 102, the Examiner is required to specifically identify wherein an applied reference is perceived to identically disclose each feature of a claimed invention. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). There are significant differences between the claimed invention and the apparatus disclosed by Ichimura that would preclude the factual determination that Ichimura identically describes the claimed invention within the meaning of 35 U.S.C. § 102.

Claim 15 has been amended to clarify that the contact hole includes a step difference, at the boundary between the first insulating layer and the second insulating layer. The difference is caused by different etching rates of the first insulating layer and the second insulating layer when using the predetermined etchant. This structural limitation is neither taught nor suggested by Ichimura.

Applicants submit that the Examiner's reliance upon an interpretation of Fig. 2 of Ichimura is misplaced. It should be apparent from Fig. 2 of Ichimura that there is **no step difference** in the contact hole 23b provided in the SiO₂ film 18 and the SiN film 19. In other words, Ichimura lacks a teaching of a step difference at the side wall of the contact hole. Thus, Ichimura fails to describe mitigation of whiskers caused by a step difference created in the contact hole, which is one object of the present invention.

Further, the present claimed subject matter differs from the applied reference in terms of the layer structures themselves. Since the wiring structures differ, the wiring structures suitable for formation of a contact hole naturally differ. Assuming, for the sake of argument, that

Ichimura discloses a second metal layer formed in the Al wiring with a thickness of 100nm, it is undeterminable whether the wiring is suitable as a wiring structure in which the contact hole includes a step difference. Thus, Applicants submit that that Ichimura fails to identically disclose the claimed invention in a way that would have been recognized by one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc., supra.*

The above argued **structure difference** between the claimed display apparatus and that disclosed by Ichimura undermines the factual determination that Ichimura discloses a display apparatus identifying corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection of claims 15, 17 and 18 under 35 U.S.C. § 102(b) for lack of novelty as evidenced by Ichimura is not factually viable and, hence, solicit withdrawal thereof.

Claims 15 and 17 were rejected under 35 U.S.C. §102 for lack of novelty as evidenced by Kawasaki et al (U.S. Pat. No. 6,281,552, hereinafter “Kawasaki”). In the statement of the rejection, the Examiner referred to Figs. 2A and 2C of Kawasaki and to portions of the patent text, asserting the disclosure of a display apparatus corresponding to that claimed. This rejection is traversed.

Applicants would stress that the factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*,

289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). Moreover, there is a significant difference between the claimed display apparatus and that disclosed by Kawasaki that preclude the factual determination that Kawasaki discloses a display device identically corresponding to that claimed.

Specifically, as clearly illustrated in Fig. 2 of Kawasaki the contact hole provided in the protective insulating film 150 and the interlayer insulating film 151 **lacks a step difference**. Claim 15 has been amended to clarify that the contact hole includes a step difference, at the boundary between the first insulating layer and the second insulating layer. The difference is caused by different etching rates of the first insulating layer and the second insulating layer when using the predetermined etchant. No such structural step difference is disclosed or suggested by Kawasaki.

The above argued **structural difference** between the claimed display apparatus and that disclosed by Kawasaki undermines the factual determination that Kawasaki discloses a display apparatus identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., supra; Kloster Speedsteel AB v. Crucible Inc., supra*. Applicants, therefore, submit that the imposed rejection of claims 15 and 17 under 35 U.S.C. §102(b) for lack of novelty as evidenced by Kawasaki is not factually viable and, hence, solicit withdrawal thereof.

Claim 16 was rejected under 35 U.S.C. §103 for obviousness predicated upon Ichimura in view of Nakanishi (JP11-111990, hereinafter “Nakanishi”). This rejection is traversed.

Claim 16 depends from independent claim 15. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 15 under 35 U.S.C. §102 for lack of novelty as evidenced by Ichimura. The secondary reference to Nakanishi does not cure the previously argued deficiency of Ichimura. Accordingly, even if the applied

references are combined as suggested by the Examiner, and Applicants do not agree that the requisite fact-based motivation has been established, the claimed invention would not result.

Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Applicants, therefore, submit that the imposed rejection of claim 16 under 35 U.S.C. §103 for obviousness predicated upon Ichimura in view of Nakanishi is not factually or legally viable and, hence, solicit withdrawal thereof.

It is believed that pending claims 15-18 are now in condition for allowance. Applicants therefore respectfully request an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicants' representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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